

AMENDMENT TO THE CLAIMS

1-11. (Cancelled).

12. (Previously Presented) A gantry support structure comprising: an elongated damping structure comprising a plurality of overlapping elongated segments forming at least a portion of a housing, wherein proximate overlapping segments are joined with damping material disposed therebetween to define a corresponding fastening region, and wherein similar adjacent fastening regions are spaced apart from each other along a cross-section of the housing taken transversally with respect to elongation of the overlapping segment, and wherein the fastening regions are disposed substantially along the length of the corresponding opposed overlapping elongated segments and have lengths substantially the same as the lengths of the corresponding opposed overlapping elongated segments.

13. (Previously Presented) The gantry support structure of claim 12 and further comprising a rigid plate secured to the housing and wherein the housing is U-shaped.

14. (Original) The gantry support structure of claim 13 and further comprising a plurality of flanges extending from the housing for fastening the housing to the rigid plate.

15. (Original) The gantry support structure of claim 14 wherein at least one of the flanges is adapted to fasten to a major surface of the rigid plate.

16. (Original) The gantry support structure of claim 12 wherein the damping material comprises a viscoelastic damping material.

17. (Original) The gantry support structure of claim 16 wherein opposed major surfaces of the viscoelastic damping material are joined to each respective segment.

18. (Previously Presented) The gantry support structure of claim 13 and further comprising linear bearings that support an element moveable relative to the support structure, the linear bearings being secured to the rigid plate.

19. (Original) The gantry support structure of claim 18 and further comprising a plurality of fasteners, each fastener passing through apertures of the rigid plate to secure the linear bearings and the U-shaped housing together on opposite sides of the rigid plate.

20. (Original) The gantry support structure of claim 13 wherein the housing further comprises overtravel stops limiting relative movement of overlapping segments.

21. (Original) The gantry support structure of claim 20 wherein the overtravel stops comprise a rod secured to a segment secured to one of the overlapping segments and extending through a clearance aperture provided in said overlapping segment.

22-52. (cancelled).

53. (Previously Presented) The gantry support structure of claim 12 wherein the fastening regions extend continuously along the length of the housing.

54. (Previously Presented) The gantry support structure of claim 53 wherein the housing is U-shaped in cross-section and wherein the gantry support structure further comprises a rigid plate joined to the housing.

55. (Previously Presented) The gantry support structure of claim 54 wherein the housing comprises first and second wall plates joined to the rigid plate, first and second L-shaped wall plates, and a plurality of intermediate wall plates, wherein a first intermediate wall plate is secured to the first wall plate with the damping material disposed therebetween and to the first L-shaped wall plate with the damping material disposed therebetween, wherein a second intermediate wall plate is secured to the second wall plate with the damping material disposed therebetween and to the second L-shaped wall plate with the damping material disposed therebetween, and wherein a third intermediate wall plate is secured to the first L-shaped wall plate with the damping material disposed therebetween and to the second L-shaped wall plate with the damping material disposed therebetween.

56. (Previously Presented) The gantry support structure of claim 54 wherein the housing comprises first and second wall plates joined to the rigid plate, first and second L-shaped wall plates, and a plurality of intermediate wall plates, wherein a first intermediate wall plate is secured to the first wall plate with bolts and with the damping material disposed therebetween and to the first L-shaped wall plate with bolts and with the damping material disposed therebetween, wherein a second intermediate wall plate is secured to the second wall plate with bolts and with the damping material disposed therebetween and to the second L-shaped wall plate with bolts and with the damping material disposed therebetween, and wherein a third intermediate wall plate is

secured to the first L-shaped wall plate with bolts and with the damping material disposed therebetween and to the second L-shaped wall plate with bolts and with the damping material disposed therebetween.

57. (Previously Presented) The gantry support structure of claim 54 and further comprising:

a pair of rails;

supports for supporting the rails in a spaced-apart relationship; and

wherein the housing and plate span between the rails.

58. (Previously Presented) The gantry support structure of claim 57 and further comprising moveable trucks supporting the housing and plate on the rails.

59. (Previously Presented) The gantry support structure of claim 58 wherein the housing comprises first and second wall plates joined to the rigid plate, first and second L-shaped wall plates, and a plurality of intermediate wall plates, wherein a first intermediate wall plate is secured to the first wall plate with the damping material disposed therebetween and to the first L-shaped wall plate with the damping material disposed therebetween, wherein a second intermediate wall plate is secured to the second wall plate with the damping material disposed therebetween and to the second L-shaped wall plate with the damping material disposed therebetween, and wherein a third intermediate wall plate is secured to the first L-shaped wall plate with the damping material disposed therebetween and to the second L-shaped wall plate with the damping material disposed therebetween.

60. (Previously Presented) The gantry support structure of claim 58 wherein the housing comprises first and second wall plates

joined to the rigid plate, first and second L-shaped wall plates, and a plurality of intermediate wall plates, wherein a first intermediate wall plate is secured to the first wall plate with bolts and with the damping material disposed therebetween and to the first L-shaped wall plate with bolts and with the damping material disposed therebetween, wherein a second intermediate wall plate is secured to the second wall plate with bolts and with the damping material disposed therebetween and to the second L-shaped wall plate with bolts and with the damping material disposed therebetween, and wherein a third intermediate wall plate is secured to the first L-shaped wall plate with bolts and with the damping material disposed therebetween and to the second L-shaped wall plate with bolts and with the damping material disposed therebetween.

61. (Previously Presented) The gantry support structure of claim 54 wherein the U-shaped housing comprises first and second wall plates joined to the rigid plate, a first L-shaped wall plate fastened to the first wall plate with damping material disposed therebetween, a third wall plate fastened to the first L-shaped wall plate and fastened to a second L-shaped wall plate with damping material disposed therebetween, a fourth wall plate fastened to the second L-shaped wall plate and fastened to the second wall plate with damping material disposed therebetween.

62. (Previously Presented) The gantry support structure of claim 54 wherein the U-shaped housing comprises first and second wall plates joined to the rigid plate, a first L-shaped wall plate fastened to the first wall plate with damping material disposed therebetween, a third wall plate fastened with bolts to the first L-shaped wall plate and fastened to a second L-shaped wall plate with damping material disposed therebetween, a fourth wall plate fastened to the second L-shaped wall plate with bolts and fastened

to the second wall plate with damping material disposed therebetween.

63. (Previously Presented) The gantry support structure of claim 54 and further comprising a second rigid plate movably joined to the first-mentioned rigid plate and a second U-shaped elongated housing joined to the second rigid plate so as to encircle the first-mentioned rigid plate and first-mentioned U-shaped housing, wherein the second U-shaped comprises a plurality of overlapping segments joined together with damping material therebetween at a plurality of fastening regions, wherein the fastening regions are spaced apart in cross-section.

64. (Currently Amended) A gantry support structure comprising:  
an elongated rigid plate;  
a housing having an elongated first plate and an elongated second plate, the first plate having a first longitudinal edge joined to the rigid plate and a second longitudinal edge spaced apart and disposed away from the rigid plate, the first plate and the second plate being coupled together through at least one damping material disposed in a region substantially along the length of the elongated first plate and the elongated second plate, the damping material having a length substantially the same as the lengths of the elongated first plate and the elongated second plate.

65. (Previously Presented) The gantry support structure of claim 64 wherein the damping material extends continuously along the length of the housing.

66. (Previously Presented) The gantry support structure of claim 65 wherein the housing is U-shaped.

67. (Previously Presented) The gantry support structure of claim 66 wherein the damping material comprises a viscoelastic damping material.

68. (Previously Presented) The gantry support structure of claim 67 wherein opposed major surfaces of the viscoelastic damping material are joined to the first plate and the second plate.

69. (Previously Presented) The gantry support structure of claim 65 and further comprising:

an elongated third plate having a length substantially the same as the second elongated plate; and

a second damping material disposed substantially along the length of the elongated second plate and the elongated third plate, the second damping material having a length substantially the same as the length of the elongated second plate and the elongated third plate.

70. (New) The gantry support structure and further comprising means for joining each of the moveable trucks to ends of the housing and plate.